

Application No.: 09/525,898
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Claim 2 (Previously Presented): A method for estimating interference comprising the steps of:

reserving at least one code in a set of codes for interference measurement only;
receiving a composite signal; and
estimating said interference at a receiver using said at least one reserved code.

Claim 3 (Previously Presented): The method of claim 2, wherein said at least one reserved code is not used for transmitting signals.

Claim 4 (Previously Presented): The method of claim 2, further comprising the step of:
broadcasting information identifying said at least one code to said receiver.

Claim 5 (Previously Presented): A mobile station comprising:
a receiver for receiving a signal over an air interface and despreding said signal using at least one channelization code;
a processor for providing said at least one channelization code to said receiver, said at least one channelization code including a reserved code that is used only to estimate interference associated with said received signal.

Claim 6 (Previously Presented): The mobile station of claim 5, wherein said receiver receives information over said air interface that identifies said reserved code.

Claim 7 (Previously Presented): The mobile station of claim 5, wherein said at least one channelization code also includes a code associated with a traffic channel assigned to said mobile station.

Claim 8 (Previously Presented): The mobile station of claim 7, wherein said code associated with said traffic channel is selected based upon a desired user bit rate for a connection between said mobile station and a radiocommunication system.

Claim 9 (Withdrawn): A base station comprising:
a transceiver for transmitting signals over an air interface; and

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a processor for controlling said transceiver, including providing information identifying a reserved channelization code, which information is transmitted by said transceiver.

Claim 10 (Withdrawn): The base station of claim 9, wherein said information is broadcast on a broadcast control channel (BCCH).

Claim 11 (Withdrawn): The method of claim 1, further comprising the step of: storing said selected code in a terminal's memory.

Claim 12 (Previously Presented): The method of claim 2, further comprising the step of: storing said at least one code in a terminal's memory.

Claim 13 (Previously Presented): The mobile station of claim 5, further comprising: a memory for storing said reserved code.

Claim 14 (Previously Presented): The mobile station of Claim 5, wherein the received signal does not contain data intended for the receiver and spread with the reserved code.

Claims 15-16 (Not Entered)

Claim 17 (Previously Presented): The method of Claim 2, wherein the at least one code is reserved within a communication cell to which the receiver belongs.

Claim 18 (Previously Presented): The mobile station of Claim 5, wherein the reserved code is reserved within a communication cell to which the mobile station belongs.

Claim 19 (Previously Presented): The method of Claim 2, wherein the estimating comprises despread the received composite signal using the reserved at least one code, and the despread result contains only interference with respect to the mobile station.

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Claim 20 (Previously Presented): The mobile station of Claim 5, wherein the receiver despreads the received signal using the reserved code, and the despread result contains only interference with respect to the receiver.

Claim 21 (Currently Amended): A method for estimating interference in a system comprising a transmitter and a receiver, the method comprising the steps of:

- reserving at least one code in a set of codes for interference measurement only, wherein the reserved at least one code is used within the system only to despread received signals and not to encode signals for transmission;
- transmitting a signal;
- receiving the signal; and
- estimating interference at the receiver by ~~despreading~~ despreading the received composite signal using the at least one reserved code.

Claim 22 (New): A method of estimating interference at a receiver in a communications system, the method comprising:

- receiving a composite signal that includes a transmitted signal representing a data stream that has been spread by means of a first spreading code;
- using the first spreading code to despread the composite signal and thereby retrieve the transmitted signal; and
- estimating interference at the receiver by using a second spreading code to despread the composite signal, wherein the estimated interference represents interference that occurred during that part of the composite signal that includes the data stream,
- wherein the second spreading code is reserved for interference measurement, whereby a probability that the composite signal includes a transmitted signal representing a data stream that has been spread by means of the second spreading code is low enough to permit the interference at the receiver to be reliably estimated.

Claim 23 (New): The method of claim 22, wherein there is a zero probability that the composite signal includes a transmitted signal representing a data stream that has been spread by means of the second spreading code.

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Claim 24 (New): The method of claim 22, comprising:

prior to receiving the composite signal, receiving a transmitted signal that includes information identifying the second spreading code.

Claim 25 (New): The method of claim 22, wherein each of the first and second spreading codes is an Orthogonal Variable Spreading Factor (OVSF) code selected from a code-tree.

Claim 26 (New): The method of claim 25, wherein the second code has a spreading factor greater than or equal to 256.

Claim 27 (New): A mobile unit for use in a communications system, the mobile unit comprising:

a receiver that receives a composite signal that includes a transmitted signal representing a data stream that has been spread by means of a first spreading code;

despreading logic that uses the first spreading code to despread the composite signal and thereby retrieve the transmitted signal; and

interference estimating logic that estimates interference at the receiver by using a second spreading code to despread the composite signal, wherein the estimated interference represents interference that occurred during that part of the composite signal that includes the data stream,

wherein the second spreading code is reserved for interference measurement, whereby a probability that the composite signal includes a transmitted signal representing a data stream that has been spread by means of the second spreading code is low enough to permit the interference at the receiver to be reliably estimated.

Claim 28 (New): The mobile unit of claim 27, wherein there is a zero probability that the composite signal includes a transmitted signal representing a data stream that has been spread by means of the second spreading code.

Claim 29 (New): The mobile unit of claim 27, comprising:

logic for retrieving, from a signal received prior to the composite signal, information identifying the second spreading code prior to receiving the composite signal.